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THESIS

A COST ANALYSIS OF THE PROCUREMENT OF CANDIDATES
FOR THE NAVAL OFFICER CANDIDATE SCHOOL

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Robert B. Adgent

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A COST ANALYSIS OF THE PROCUREMENT OF CANDIDATES
FOR THE NAVAL OFFICER CANDIDATE SCHOOL

by

Robert B. Adgent

Lieutenant, United States Navy

Submitted in partial fulfillment of
the requirements for the degree of

MASTER OF SCIENCE
IN
MANAGEMENT

United States Naval Postgraduate School
Monterey, California

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IN

MANAGEMENT

from the

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ABSTRACT

Increased awareness of the costs involved in maintaining the nation's military establishment has forced the Department of Defense to consider peacetime decisions concerning military spending as essentially economic decisions involving allocation of available resources. In order to accomplish this self analysis, studies are being made in all areas of defense spending to determine what is being spent, and how well it is being spent.

This is a cost analysis of the major cost areas involved in procurement of enlistees for the Navy's Officer Candidate School at Newport, Rhode Island. The analysis is based on the results of a questionnaire completed by 67.5 per cent of the Offices of Naval Officer Procurement. The relative magnitudes of the various cost areas have been derived from these questionnaires, and averages per candidate are stated.

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CHAPTER I

STATEMENT OF THE PROBLEM

Theoretical Background. The Navy, along with all elements of the nation's defense establishment, is coming under more and closer scrutiny in all aspects of its operations. The frequency and intensity of these inquiries have been observed to increase in relation to the time elapsed since the last "hot," or shooting war--with some random exceptions caused by political scares of various sorts.

This is a natural and predictable phenomenon associated with a democracy of the type which we enjoy. I believe the uniqueness of this growing concern over the expense of peacetime defense expenditures can be attributed to two factors associated with our form of government.

Firstly, the citizens of the United States are satisfied with their form of government and its basic doctrine of the importance of the individual. This results in an attitude of complacency which is shaken only by an immediate and apparent threat to its existence. Our citizens tend to view the problem of government as one which we have solved and, consequently, needs no further attention.

Secondly, our philosophy of government is non-missionary in nature. This is a very important aspect of our belief in the freedom of the individual to make his own decisions, whether it be how he will spend his income, of how his nation will govern. We are, therefore, not interested in a strong military as a means of imposing our political beliefs on other

nations.

For these two reasons, then, concern over defense spending becomes more apparent as we get further from immediate threats to our freedom. We tend to ignore these problems in favor of more pressing problems to the individual. Consider this illustration for example. While we were actively engaged in World War II, an individual confronted with the cost of an airplane might well consider alternative uses of this money in terms of rifles, tanks, or some other defensive weapons. Today, however, the average citizen considers the cost of an airplane in terms of new cars, a new house, or even social projects in the field of welfare and education--but never in terms of alternative weapon systems. This attitude cannot really be criticized because we are satisfied with our form of government, we see no immediate threat to its existence, and we do not desire to impose its philosophy on other people.

The problem of maintaining a favorable balance of military power becomes more difficult as we become less concerned with the importance of military spending, and, consequently, less willing to sit silently by while over half of the nation's tax dollar is spent on military preparedness. The problem becomes more acute each day as we become less willing to sacrifice personal and social benefits in the interests of military strength. To increasing degrees, then, military decisions involving the expenditure of the taxpayers' funds are being scrutinized by everyone from Congressmen to individual citizens. And, all have the idea in mind of alternative private and social uses for the money.

This increased awareness of defense spending has forced the military to a more acute awareness of an axiom which has always been true, even during wartime, but which has been ignored largely because it involves so much honest and painful self-analysis. This basic fact is this: Military decisions must be thought of as essentially economic decisions in which maximization of our defense posture depends upon the efficient utilization of the nation's resources which have been allocated for this use in the form of tax dollars. And, as citizens become more critical of the large allocation of resources to this end, the need for economically efficient decisions by the military becomes more pronounced.

As a result of this new, or more accurately, increased need for the application of economic criteria in military decision making, many studies have been initiated and much has been written dealing specifically with this problem. One of the better known and more widely accepted attempts to present this new way of looking at military problems has been made by Hitch and McKean in their book, The Economics of Defense in the Nuclear Age. In it, they make the following statement:

Essentially we regard all military problems as, in one of their aspects, economic problems in the efficient allocation and use of resources. We believe that this way of looking at military problems goes far toward reconciling the apparent conflict of views between the officers and officials who are responsible for defense and the officials and Congressmen whose primary interest is economy--except in determining the over-all size of the military budget, where conflict between these points of view is inevitable.¹

¹Charles J. Hitch and Roland N. McKean, The Economics of Defense in the Nuclear Age (Cambridge: Harvard University Press, 1963), p. V.

Many other studies, both within the Defense Department and by civilian research groups like The Rand Corporation, are functioning to aid the military in assuming this new peacetime role of efficiency expert.

Importance of the Study. One of the first tasks facing the military in its new role was to analyze various costs in terms of overall objective categories. For example, training costs were once considered apart from all other costs and unrelated to any specific military objective. Now, however, the cost of training a crew of men to operate a missile site, for example, must be considered as part of the cost of that missile weapons system, and must be included in any comparison with alternative systems.

The problem, then, is one of efficiency at all levels of spending, starting with the President's budget and reaching down to the smallest procurement made by a service branch of the Defense Department.

Hitch and McKean distinguish between two major levels of efficiency in resource allocation:

It is convenient in analyzing national security problems (and many others) to distinguish between "efficiency in the large" and "efficiency in the small"...Efficiency in the large, or at relatively high levels, involves getting the gross allocations right in references to major objectives--in the case of national security, the allocation of resources between military and non-military uses, and allocations to the Services and the major military "missions" in conformity with national objectives. Efficiency in the small, or at relatively low levels, involves making good use of the results allocated to each mission and the numerous subordinate jobs within each.²

²Ibid., p. 125.

The first and most important step in attaining a higher degree of economic efficiency must be a close analysis of the small, subordinate costs of which the larger costs, and hence, "efficiency in the large," are composed. Such is the nature of this study.

The Problem. I have attempted to make a cost analysis of the Navy's recruiting activity as it applies to the procurement of enlistees for the Officer Candidate School at Newport, Rhode Island. To accomplish this, I have attempted to answer the question: What are the major costs involved in procurement activities in connection with Officer Candidate procurement?

I prefer to speak of "cost analysis" rather than "cost estimation." A single cost figure would be very difficult to obtain; would at best be an estimation of a number of variables of questionable importance in the recruiting effort; and would be of little value in any analytical attempt at economizing. A "cost analysis," on the other hand, is more concerned with the major costs involved in the effort. It seeks to arrive at a reliable indication of the magnitude of the costs in relation to the entire problem rather than being overly concerned with arriving at one overall cost figure.³

Analysis Limitations. There are many limitations inherent in any cost study. The most obvious caution to be exerted in such a study is

³E. S. Quade-(ed.), Analysis for Military Decisions (Santa Monica, California: The Rand Corporation, 1964), pp.452-481.

to insure that costs and quantities do not become synonymous with performance and quality. In the field of personnel procurement, this is an especially dangerous comparison to make, or even to suggest. It is rather easy to quantify recruiting efforts in terms of numbers of candidates actually sworn in for admission to Officer Candidate School. However, the problem of quantifying the quality of the individual candidates becomes very complex and dependent upon many subjective factors that have never been quantified. This is another reason for making a "cost analysis" rather than attempting to arrive at one figure to which I could proudly point and say, with blind confidence, that this figure represents the cost of recruiting the "average" Naval officer. Certainly, low costs per individual is but one of the factors, and probably a minor one, which the Navy wishes to consider in its officer procurement activities.

Another caution to be stated is that this study is unofficial and should therefore not be referred to as representing officially arrived at conclusions of the Navy's cost of recruiting. All conclusions reached and inferences drawn are based upon the statistical significance of data in a sample obtained from unofficial questionnaires submitted by the various offices of Naval Officer Procurement.

Research Significance. The minor significance of this research lies in the fact that no such study at this level has been attempted heretofore. Studies have been made which rely mainly on budgeted, or allowable,

expenditures for the overall recruiting of Naval officers, but these figures have made no attempt to differentiate between the costs of the various programs, such as Officer Candidate School, Naval Cadet, and Aviation Officer Candidate School.

The ultimate significance can be found in its relation to a broader question concerning the total costs of providing a Naval officer fully qualified to fill a specific billet. The cost of recruiting would be but the first of many costs to be considered in arriving at this officer's "cost" to the Navy. Examples of other costs which would be applicable are: training costs at Officer Candidate School; the costs of further specialized training; the costs of experience necessary in reaching a useful, qualified state; and his salary during all of this period.

It has been logically argued that costs such as recruiting and basic officer training are similar to fixed costs and should be spread over all of the areas, or billets, in which the officer performs during his time in the Navy. However, we are again getting back to the problem of quantifying the subjective values of the individual officer in predicting not only his potential value to the Navy in his present billet, but also his ultimate or cumulative value. In addition, this is related to many personal decisions, not the least of which is his decision in regards to the amount of time he will spend in the Navy.

In order to realize the ultimate significance of a study of this sort, then, one must be able to relate its findings to a major operational weapon systems. Any costs which cannot be related in this manner

to the stated objective, or *raison d'etre*, for the Navy's existence must be considered inefficient, and an unnecessary cost in resource drain on the rest of the Navy.

Summary. I have attempted to analyze the major costs involved in one aspect of providing an efficient and effective defense posture--that of input procurement for the Navy's Officer Candidate School. The significance of my findings can only be realized when considered as a part of a much broader study of the costs of a major defense objective.

CHAPTER II

THE PROCEDURES, MATERIALS, TECHNIQUES, AND METHODS USED

The Procedures. The statement has been made that the first thing an analyst must do is to make sure that he understands the area in which he is working.⁴ The following statement by Wallis and Roberts in their book, Statistics, A New Approach, supports this requirement:

Successful statistical description, like most successful statistical work, depends greatly on knowledge of the subject matter. Mere manipulation of figures or preparation of standard tables and graphs is seldom fruitful unless guided by a clear conception of the subject matter and of what relations would be worth looking for.⁵

The following factors contribute to my understanding of the costs involved in Navy officer procurement:

1. I recently served a tour of duty as Programs Officer at an Office of Naval Officer Procurement.⁶
2. The working knowledge gained during this tour has been reinforced recently by visits to Recruiting Stations in this area, and correspondence with the Assistant Officer in Charge of the Recruiting Station to which I was assigned.
3. The advice and comments of the officers who completed the

⁴Ibid., p. 461.

⁵Harry V. Roberts and W. Allen Wallis, Statistics, A New Approach (Brooklyn: The Free Press, 1962), p. 125.

⁶Naval Recruiting Station, Nashville, 1960-1961.

"comments" section of the questionnaire broadened my scope of understanding.⁷

Variables Measured. My method of research was to list all of the variables I considered relevant to an overall cost analysis. This list was translated into questions which could be answered from cost figures available for the fiscal year 1963. These questions were categorized under four main headings: Personnel, Transportation, Office Space and Supplies, and Miscellaneous.

Under the Personnel heading, I requested the numbers and ranks, or rates, of officers and enlisted men permanently assigned to Officer Procurement. Although personnel from the stations' Medical Departments were included in these questions, I have decided to exclude them from my analysis for the following reasons:

1. As stated in Chapter I, this is a study of the major direct costs, and I am more interested in determining the magnitude of the major areas than I am in an overall cost figure.

2. The variety and number of services performed by Medical Department Personnel make it difficult to arrive at realistic estimates of time spent on officer candidates.

3. All medical services could be, and in some cases are, accomplished at the local Armed Forces Examining Centers.

⁷See Appendix A.

Under Personnel, I requested the number of days spent away from the Main Station by Officer Procurement personnel for which they are eligible for per diem payments. Per diem payments are payments made to individuals while performing temporary duty away from their duty station. These payments are intended to defray additional expenses involved in subsisting while on the temporary duty. These answers enabled me to derive the annual cost of salaries and per diem payments made to procurement personnel.

Under the heading of transportation, I have attempted to establish the annual cost of transportation utilized by the Officer Procurement personnel, as well as the cost of government travel requests issued to applicants. Government transportation is used primarily by procurement personnel in travel to and from college campuses. Those persons who are considered eligible to apply for the Officer Candidate program may be issued a government travel request. This will permit them to travel at the Navy's expense via commercial transportation to and from the Main Recruiting Station in order to complete their applications. I have not considered the further transportation costs to the Navy of the candidates' travel to Newport from their respective homes, because this does not fall within the perimeters of my study.

The cost of office space utilized by the officer procurement section has been derived by study of the office size, the annual rental charge, and from whom the space is rented. Those questionnaire replies not supplying the annual rental charge were assigned costs based upon the average cost per square foot to other stations renting from the same

source. I feel this is a reliable assignment of costs, since the average is based on other rental charges from the General Services Administration. Only three of those responding to the questionnaires indicated that office space was rented from owners other than the General Services Administration. The annual rental charge was known in these cases, and they were not used in deriving the average rate which was applied to those who did not supply the annual rental charge.

The annual cost of office supplies was requested, and has been included with the cost of office space rental. The number of typewriters, desks, chairs, tables, filing cabinets, and projectors was also obtained. These data will be analyzed in terms of the average requirement per candidate during a one-year period. No costs have been derived from these figures because of the lack of homogeneity of the data, and because the Navy does not apply depreciation costs to such equipment. However, the cost of replacements, repairs, and maintenance are paid out of the money budgeted for office supplies. These data, then, should reflect a reliable annual cost of maintaining these items in a workable condition, including replacements.

Publicity costs are defined as those costs resulting from the procurement of publicity aids of various types, including printed matter, motion picture films and tape recordings; and the personnel required to effect the dissemination thereof. Publicity costs in an effort such as recruitment of personnel could be expected to be one of the major cost areas. It can be divided into two sub-areas: advertising and

printing costs, and local station costs in terms of personnel required to promulgate publicity material.

The costs of the first sub-area, that is, the cost of printed materials and other materials used in publicity, cannot be determined since no differentiation is made at the level of original procurement in costs for officer programs between Officer Candidate procurement and the other officer procurement activities of the Navy. The second sub-area, the cost of personnel required to process and disseminate this material, was obtained and analyzed.

The last section of the questionnaire requested that additional items be listed which the individual procurement officers felt should be considered in this cost study. The most mentioned items pertained to the time spent on other duties which Navy Recruiters are called upon to perform. Some of these are: conducting local agency checks for the Office of Naval Intelligence in connection with determining security clearances; accident investigations primarily involving Navy recruiters; and various services performed for Navy dependents living locally, such as assistance granted by the Navy in the case of a death.

These are indeed legitimate duties which could consume much of the recruiters' time which could be more profitably spent on procurement-associated duties. Many of these duties, however, must be considered as part of the cost of recruiting since they are the result, directly or indirectly, of the recruiting effort in that area. For example, most of the accident investigations directly involve Navy recruiters

and their families, and, from personal experience, many other duties such as Casualty Assistance and investigation of household good damage claims, are indirectly related to the presence of Navy Recruiters in the area. Locations where this would not be true would be where other Naval facilities are located nearby. In situations of this nature, and in areas where there exists a Naval Reserve Training Center, all of these duties could conceivably be assumed by personnel other than Officer Procurement personnel.

I will, however, grant this as an area which consumes much of the recruiters' time which possibly could be spent more profitably on procurement matters. Since most of these duties are associated in some way with the recruiting effort, either directly through the Navy personnel and their dependents, or indirectly in protecting the Navy's image in the community, I have chosen not to attempt to extract their cost from the total effort of officer procurement. This should, however, be considered as a part of any conclusion which the reader may draw from the cost figures of this study.

The other item which was mentioned as a possible addition to my cost analysis was the contribution of Navy Recruiters in the branch offices who are assigned to the enlisted procurement section. Most comments stated that the extent of their efforts included making officer procurement literature available for persons who have become interested in the officer program through other means, and contact the local recruiting office for additional information.

I have chosen not to consider this cost for two reasons. Firstly, it would be impossible to determine the contribution of this service to the total procurement effort, and whatever its worth, the function could be performed by other means. The second reason is that officer procurement efforts comprise such a small percentage of the branch recruiters' time that any effort to quantify their contribution would be impossible, as well as insignificant, in relation to the entire effort.

Techniques and Methods. My approach to the research necessary to arrive at statistically significant conclusions was to get as large a sample as possible from a population consisting of the Naval Recruiting Stations which have Offices of Naval Officer Procurement. Although initial contacts of prospective officer candidates are sometimes through other offices of the Recruiting Station and other recruiting agencies such as Aviation Officer Procurement Offices, the occurrences are insignificant by virtue of their randomness and their policy of referring them immediately to the appropriate procurement office.

There are forty Main Recruiting Stations which have Offices of Naval Officer Procurement. Questionnaires were sent to all of these Stations. I depended upon the number that responded to comprise a significant sample size. A total of twenty-seven Stations made replies which were complete enough to be of value in the study. In terms of percentage, this is 67.5 per cent of the total number of Stations, or population, under study.

The reliability of a sample depends either upon its size in relation to the population under consideration, or on its absolute size.

Schlaifer, in his Introduction to Statistics for Business Decisions, states that:

...unless the sample takes in a really substantial fraction of the population, its reliability depends on its absolute rather than its relative size.⁸

A sample size of twenty-seven, representing over two-thirds of the population being considered, appears to meet the requirements both in absolute and relative size.

Another requirement of a sampling process is that it be the result of a random selection process from the entire mass of data under consideration. Wallis and Roberts give the following definition of randomness:

A sample size "n" is said to be a random sample if it was obtained by a process which gave each possible combination of "n" items in the population the same chance of being the sample actually drawn.⁹

In considering this definition, the question arises concerning the number of Stations that did not reply to the questionnaire. There are many possible reasons, some of which should be pointed out because of the influence which they could have on the validity of the results.

The most obvious possible reason for a Station's failure to reply

⁸ Robert Schlaifer, Statistics for Business Decisions (New York: McGraw-Hill Book Company, Inc., 1961), p. 147.

⁹ Roberts, op. cit., p. 115.

to a questionnaire concerned with costs is that they fear the results will indicate their station has a higher cost than other stations, consequently making an undesirable comparison. This comparison could easily be avoided on their part by simply failing to respond to the questionnaire. I anticipated that some stations might feel this way, and tried to avert any such influence on the individual's willingness to reply by emphasizing in the letter which accompanied the questionnaires, that the study was to be composite, and that comparative figures would not be released.¹⁰

Other reasons for failure to reply would be less-influential on the validity of my conclusions, but will be listed for consideration by the reader in his personal validity judgment.

Some could have failed to get the questionnaire, either because of incorrect addressing, or through incorrect routing once it arrived at the station.

Conceivably, many offices are so busy that filling out an unofficial questionnaire ranked so low in importance that they have not yet found time to reply.

Possibly, some replies were never made because of personal indifference toward such a study.

Another aspect of randomness which should be considered is the

¹⁰ See Appendix A

geographic locations of the samples. For example, an activity located in a heavily populated, cosmopolitan area would be expected to have lower transportation costs than one located in a sparsely populated, predominately rural area. Closely associated with this aspect would be the difference in the potential number of applicants represented by the percentage of the population possessing a college degree. A study of the list of respondents indicates that a good cross section of the nation is represented in randomly distributed geographic areas.¹¹

Summary. The analysis consists of a study of the results of a questionnaire sent to all Offices of Naval Officer Procurement. The number of Offices answering provided a sample size consisting of 67.5 per cent of the population under consideration. There does not appear to be any reason the results derived from this sample should not be a statistically reliable indication of the true characteristics of the entire population, except for those possible reasons which have been discussed earlier.

¹¹See Appendix B.

CHAPTER III

QUESTIONNAIRE RESULTS

Table I lists the average costs of procuring an Officer Candidate in each of the cost areas covered by the questionnaire. Appendix B contains further analyses of all major cost areas.

The questionnaires represented the actual procurement of 2,160 Officer Candidates during Fiscal Year 1963. All results, except as noted, were converted to an average figure based on this number.

TABLE I

MAJOR COSTS OF PROCURING A NAVAL OFFICER CANDIDATE

Salaries of Procurement Personnel.....	\$502.32
Rental of Office Space.....	173.01
Per Diem Payments to Procurement Personnel.....	21.10
Government Transportation.....	18.67
Office Supplies.....	6.24*
Salaries of Publicity Personnel.. ..	1.64
<hr/>	
Total	\$722.98#

* This figure was computed on the basis of 22 stations with a total of 1,740 candidates. Five stations did not supply sufficient information in the questionnaire to be considered reliable.

NOTE: These results represent unofficial estimates of major cost areas only. See Chapter II prior to making any assumptions relative to the validity of these figures.

Further analyses are contained in Appendix B.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Summary. I have attempted to determine the magnitude of the major costs involved in recruiting an applicant for the Navy's Officer Candidate School.

To accomplish this, I analyzed data contained in questionnaires from 67.5 per cent of the Navy's Offices of Officer Procurement. This percentage represents those offices that chose to participate in the study by completing the questionnaire. There may be several reasons, alluded to earlier, for 32.5 per cent of the offices failing to respond to the questionnaire. These could affect the validity of any conclusions based on information contained in the questionnaires. However, the relative and absolute size of the sample, the geographic randomness represented by the replies, and the fact that I wasn't trying to determine a "yes" or "no," "black" or "white" issue, all add to the reasonableness of my findings.

Implications and Recommendations. The cost of officer procurement is important in that it represents a resource drain on the rest of the Navy, and, ultimately, on the entire defense effort. This very significant fact is often overlooked in many aspects of the total defense effort. The mistake is often made of considering an area like recruiting as if it had an end all its own, with a special place in the national budget. Such obviously is not the case. Every dollar spent on recruiting subtracts that much from the resources available to the entire

defense establishment.

A comparison must then be made between a dollar spent on personnel procurement, and a dollar spent in each and every area of defense spending. In order to make this sort of comparison, the first step is to "pin down," or objectively determine, the costs involved in every effort expended by the various services. The second step is to relate all these costs to major weapons systems in order that a value judgment may be applied in the cost comparison.

This cost analysis of Naval Officer procurement is significant only when it can be related to the entire cost of filling an operational billet in the fleet as part of a weapon system. One suggestion for further study would be that additional cost analyses be made, starting with the candidates' travel costs to Newport, and covering all costs involved in bringing an officer to a state of qualified readiness.

This analysis would become more difficult as it progressed into the officer's career. For example, a determination would have to be made at some point as to just when the officer is no longer a "liability" and has become an "asset" to the Navy. Considering the many duties a typical Naval Officer is called upon to perform, it can easily be seen that the transition from "liability" to "asset" is a gradual one, and involves many value judgments. In addition, consideration would have to be made of all the alternatives available for the utilization of the officer's time at every point in his career.

I feel further study should also be made of the cost of procurement

personnel, since this analysis has shown this to be the major cost area involved. Since this is the area which consumes most of the resources allocated to recruiting, every effort should be made to maximize the effectiveness of this expenditure.

For example, the interview is one of the most important screening devices which the procurement officer is required to perform. Yet, how many of these officers have received any training in this field? Also, it has been my personal observation that many procurement officers, particularly in the ranks of Lieutenant and Lieutenant (junior grade), have been assigned to a Recruiting Station to await a detachment date. Is how many cases is this true; and, if it is true in a significant number of cases, how could this be expected to affect such an officer's ability as a recruiter?

These questions illustrate the major objective of this cost analysis, which has been to indicate the area in which the Navy is spending most of its recruiting resources. Having accomplished this, one is forced to question how effectively these resources are being utilized.

BIBLIOGRAPHY

- Hitch, Charles J., and Roland N. McKean. The Economics of Defense in the Nuclear Age. Cambridge: Harvard University Press, 1963.
- Quade, F. S. (ed.). Analysis for Military Decisions. Santa Monica, California: The RAND Corporation, 1964.
- Schlaifer, Robert. Introduction to Statistics for Business Decisions. New York: McGraw-Hill Book Company, Inc., 1961.
- Wallis, W. Allen, and Harry V. Roberts. Statistics, A New Approach. Brooklyn: The Free Press, 1962.

APPENDIX A

(Letter which accompanied cost questionnaire.)

U. S. Naval Postgraduate School
Monterey, California

11 February 1964

Dear Sir:

I am conducting a study to determine the actual cost of recruiting candidates for the Navy's Officer Candidate School on a composite, nationwide basis. Comparative figures will not be released.

Please assist me and add to the accuracy of this report by seeing that the information requested on the enclosed questionnaire is filled in and returned to me in the enclosed stamped, self-addressed envelope.

I feel sure you must have wondered just what the Navy's recruiting effort is costing on a nationwide basis. If so, I will be happy to supply you with a copy of the results of the study if you will indicate same on the questionnaire.

Very respectfully,

R. B. ADGENT
Lieutenant, U. S. Navy

COST STUDY QUESTIONNAIRE
FOR FISCAL YEAR 1963

PERSONNEL assigned to Officer Procurement:

Number of officers and rank: _____

Number of enlisted and rate: _____

Number of days per diem (or amount, if known) paid to officers and
and the number (or amount) paid to enlisted:

Officer: _____

Enlisted: _____

TRANSPORTATION:

Number of automobiles permanently assigned to the Officer Procurement
Section: _____

Number of miles traveled via government transportation by Officer
Procurement personnel: _____

Cost of travel requests (TRs) issued to applicants: _____

OFFICE SPACE AND SUPPLIES:

Approximate size of office space assigned to the Officer Procurement
Section: _____

Annual rental charge: _____

From whom rented (GSA, private, etc.): _____

Approximate cost of office supplies issued to Officer Procurement:

Number of each item below assigned to Officer Procurement :

typewriters _____

desks _____

chairs _____

tables _____

filing cabinets _____

projectors _____

MISCELLANEOUS:

How many men (including rates) are permanently assigned

to publicity: _____

How much time does the publicity department estimate is spent on Officer Procurement projects? (Give a good estimate, like "2 hours per day," "half their time," etc.):

What other items should I consider in this study? (Please include applicable costs.)

How many men were sworn into the Navy during fiscal year 1963 as candidates for OCS? _____

APPENDIX B

ANNUAL SALARIES OF OFFICER PROCUREMENT PERSONNEL

<u>Rank/Rate</u>	<u>Number</u>	<u>Annual Salary</u>	<u>Totals</u>
Lieutenant Commander	7	\$9,815.16	\$ 68,706.12
Lieutenant	30	8,375.16	251,254.80
Lieutenant (JG)	24	7,414.56	177,949.44
Chief Petty Officer	39	6,300.00	254,700.00
First Class P.O.	39	5,398.80	210,553.20
Second Class P.O.	18	4,536.00	81,648.00
GS-3	2	3,800.00	7,600.00
GS-4	6	4,500.00	27,000.00
GS-5	1	5,600.00	5,600.00
<hr/>			
TOTAL			\$1,085,011.56
TOTAL OFFICER CANDIDATES RECRUITED			2,160
AVERAGE PER CANDIDATE			\$502.32
<hr/>			

TABLE II

ANNUAL OFFICE SPACE RENTAL AND SUPPLIES
REQUIRED FOR OFFICER PROCUREMENT

Office Supplies	\$ 10,863.72*	
AVERAGE per applicant		\$ 6.24
Office Space	\$373,718.08	
AVERAGE per applicant		\$173.01
TOTAL AVERAGE per applicant		<u>\$179.25</u>

*These figures were computed on the basis of 22 stations with a total of 1,740 candidates. Five stations did not supply sufficient information in the questionnaire to be considered reliable. Other averages are based on 2,160 candidates.

NOTE: Office equipment used in the procurement of the 2,160 reported candidates included:

122 typewriters	41 tables
179 desks	165 filing cabinets
459 chairs	7 motion picture projectors

TABLE III

ANNUAL PER DIEM PAYMENTS
TO OFFICER PROCUREMENT PERSONNEL

Officers	\$35,108.88
Enlisted	10,476.54
	<hr/>
TOTAL	\$45,585.42
TOTAL NUMBER OF CANDIDATES	2,160
AVERAGE per Applicant	\$21.10

TABLE IV

ANNUAL GOVERNMENT TRANSPORTATION COSTS
OF OFFICER PROCUREMENT

Miles Traveled via Government Transportation	342,692
Cost of Transportation (\$.04 per mile)	\$13,707.72
Cost of Transportation Requests	26,618.71
	<hr/>
TOTAL Transportation Costs	\$40,326.43
TOTAL OFFICER CANDIDATES	2,160
AVERAGE per Applicant	\$18.67

TABLE V

ANNUAL SALARIES OF PUBLICITY PERSONNEL
ASSIGNED TO OFFICER PROCUREMENT

Total time reported spent on Officer Procurement projects in man-weeks	27
Salary cost at \$131.25 per week	\$3,543.75
TOTAL OFFICER CANDIDATES	2,160
AVERAGE per Applicant	\$1.64

NOTE: This includes the cost of personnel required to disseminate the publicity material only, and does not include the cost of procurement of the publicity material. See Chapter II for further explanation.

TABLE VI

GEOGRAPHIC LOCATIONS OF RECRUITING STATIONS
COMPRISING THE SAMPLE

New Orleans, La.	Philadelphia, Pa.
Richmond, Va.	New York, N. Y.
Milwaukee, Wis.	Omaha, Neb.
Oklahoma City, Okla.	Chicago, Ill.
Little Rock, Ark.	Dallas, Tex.
Albuquerque, N. M.	Detroit, Mich.
Minneapolis, Minn.	Houston, Tex.
Raleigh, N. C.	Buffalo, N. Y.
Pittsburgh, Pa.	Portland, Ore.
Ashland, Ky.	Seattle, Wash.
Albany, N. Y.	Kansas City, Kan.
Des Moines, Iowa	Columbus, Mo.
Columbia, S. C.	Los Angeles, Calif.
St. Louis, Mo.	

TABLE VII

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A cost analysis of the procurement of ca



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